REMARKS

Applicant has amended claims 1, 2, 11 and 13. Claims 1-4, 7-9 (as withdrawn), and 11-15 are still pending in this application.

Applicant would like to thank Examiner Robinson for his consideration during a short informal telephone interview of today with Applicant's attorney. During the interview, the Examiner provided suggestions to clarify the language used in Applicant's claims. Applicant has incorporated the Examiner's suggestions into the independent claims herein submitted.

Applicant would like to note that claims 7-8 and 9 (Group II and III, respectively) are linked to the pending claims by linking claim 1. Accordingly, upon the allowance of the linking claim, the restriction requirement as to the linked invention should be withdrawn and any claims depending from or otherwise including all the limitations of the allowable linking claim will be entitled to examination along with claims 1-4.

The Examiner rejected claims 1-4 under 35 U.S.C. §103(a) as being obvious over Uhl (U.S. Patent No. 5,751,417) in view of Stafford (US Patent No. 5,504,575). Applicant traverses the rejection.

As was previously discussed in the Amendment dated February 28, 2003, the present invention as claimed in claim 1 concerns use of a dispersion element and a switchable mirror array to control selection of certain wavelengths in a microscope. As an example, Figure 3A illustrates an arrangement where the mirror array is used in both the illumination path and the detection path (see Specification page 8, lines 26-28). As another example, Figure 2 illustrates an arrangement where the mirror array (DMD) is used in only the detection path. As shown Figure 2, the detection beam coming through the pinhole PH1 is spatially dispersed by a dispersion element GT1 and hits the mirror array DMD. The mirror array DMD then selects certain wavelengths from the spatially dispersed wavelengths. The selected wavelengths which have been spatially separated by the dispersion element DT1 are then received by a detector DT3 **as dispersed light**. (See Specification at page 7, lines 15-30).

Accordingly, claim 1 includes a feature that those wavelengths that have been selected by the mirror array are received by a detector **as dispersed by a dispersion element** without the selected wavelengths being recombined (emphasis added). Being able to select certain wavelengths from the light that has already been spatially dispersed is a very important feature of the present invention. This is especially true in a confocal fluorescence microscope because now the spectrum of light emitted by a fluorescing sample can be divided into different spectral zones that can be treated as separate detection channels to accommodate multiple fluorescences from the sample which have different fluorescing wavelengths (see specification at page 1, lines 12-17). Moreover, this feature provides another advantage that the selected wavelengths can be simultaneously detected by a detector array for accurate and faster imaging.

The Examiner stated that Uhl discloses the arrangement as claimed in claim 1. Applicant respectfully disagrees. The Uhl reference teaches that the selected wavelengths dispersed by a dispersion element 28 are recombined by a negative dispersion element 34 before it reaches a detector 38 (element 36 at the lower left portion of Figure 1 should be apparently labeled as 38) (See Column 6, lines 12-19). Uhl uses at least two spectrometer arrangements 28, 34 in the observation beam path. These are identical to one another and are arranged in such a way that the spatial dispersion after the diaphragm 32 is exactly cancelled, i.e., the wavelength proportions are spatially superimposed again. As stated in the Uhl reference at col. 3, lines 1-15, "a second spectrometer arrangement which is analogous to the first spectrometer arrangement and which is operated in **subtractive dispersion in order to spectrally re-combine the light** of the wavelength selection diaphragm which has been spatially fanned out and to image it in a second image plane". In other words, the light being received by the detector is not a spatially dispersed light at all. Rather, it is a non-separated integral signal.

The Examiner in paragraph 4 of the Office Action stated that "the claims do not require dispersed light to impinge upon a detector. The claims only require that the light incident upon the detector has been dispersed by the dispersion element, which the references show". Although Applicant respectfully disagrees with the Examiner, Applicant has further amended claim 1 to make it clear that the detector receives light as dispersed light solely to advance prosecution of this application. Claim 1 now recites "selected wavelengths that have been spatially dispersed by the dispersion element **impinge upon a detector as dispersed light**." (emphasis added).

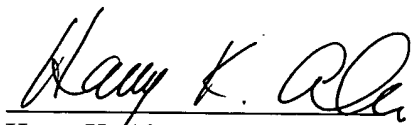
By contrast, the light being received in the Uhl arrangement is not dispersed at all at the point of detection. As discussed above, the light being received by the Uhl detector is an integral signal where all the wavelengths have been recombined. Uhl neither teaches nor suggests routing dispersed wavelengths to a detector without recombining the wavelengths.

Applicant has made similar changes to independent claims 2, 11 and 13. For the similar reasons as discussed above with respect to claim 1, Applicant submits that independent claims 2, 11 and 13 are patentable.

Dependent claims 3-4, 12 and 14-15 are also patentable by virtue their dependency from their parent claims.

Based upon the above amendments and remarks, applicants respectfully request reconsideration of this application and its early allowance. Should the Examiner feel that a telephone conference with applicants' attorney would expedite prosecution of this application, the Examiner is urged to contact him at the number indicated below.

Respectfully submitted,



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